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Walsh et al.

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(54) **PRODUCTION OF OMEGA 3 LONG CHAIN
POLYUNSATURATED FATTY ACIDS IN
OILSEED CROPS BY A
THRAUSTOCHYTRID PUFA SYNTHASE**

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(58) **Field of Classification Search**
None
See application file for complete search history.

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(57) **ABSTRACT**

This disclosure concerns recombinant host organisms
genetically modified with a polyunsaturated fatty acid
(PUFA) synthase system and one or more accessory proteins
that allow for and/or improve the production of PUFAs in
the host organism. The disclosure also concerns methods of
making and using such organisms as well as products
obtained from such organisms.

38 Claims, 7 Drawing Sheets